

CLAIMS:

1. A module comprising a functional block and a test controller for controlling the functional block in an evaluation mode of the module, the test controller comprising:
a plurality of pins including an input pin and an output pin;
a first register coupled between the input pin and the output pin for receiving a
5 bit pattern via the input pin and outputting the bit pattern via the output pin; and
a second register coupled to the first register for capturing the bit pattern responsive to an update signal;
characterized in that the test controller further comprises dedicated control circuitry for blocking the update signal responsive to the bit pattern.

10 2. A module as claimed in claim 1, characterized in that the dedicated control circuitry comprises a first logic gate having:
a first input for receiving the update signal;
a second input coupled to the first register for receiving the bit pattern; and
15 an output coupled to the second register.

3. A module as claimed in claim 2, characterized in that the dedicated control circuitry further comprises a plurality of logic gates coupled between the first register and the second input of the first logic gate for providing the second input with the bit pattern in a
20 modified form.

4. A module as claimed in claim 3, characterized in that the test controller further comprises:
a multiplexer having a control terminal, a first input, a second input, and an
25 output coupled to the output pin;
a third register coupled between the input pin and the first input of the multiplexer; and
a no-update bypass register coupled between the input pin and the second input of the multiplexer;

the control terminal of the multiplexer being responsive to at least a part of the bit pattern.

5. A module as claimed in claim 4, characterized in that the dedicated control

5 circuitry comprises a second logic gate having:

a first input coupled to the plurality of logic gates for receiving the bit pattern in the modified form;

a second input for receiving a further update signal; and

10 an output coupled to the third register, the third register being responsive to the further update signal.

6. A module as claimed in claim 4 or 5, characterized in that an output path of the plurality of logic gates comprises a data storage element responsive to the update signal for storing the bit pattern in the modified form.

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7. A module as claimed in claim 2, characterized in that the test controller further comprises:

a further multiplexer having a first input, a second input, an output and a control terminal coupled to an output of the second register;

20 a first further register coupled between the input pin and the first input of the further multiplexer;

a second further register being responsive to the update signal, the second further register having at least an input coupled to the first further register; and

25 a conductor coupled between the input pin and the second input of the further multiplexer;

the first register being coupled between the output of the multiplexer and the output pin; and

the second input of the first logic gate being coupled to the first register via the second register.

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8. A module as claimed in claim 7, characterized in that the second further register is responsive to a reset signal.

9. A module as claimed in claim 7 or 8, characterized in that the second input of the first logic gate is coupled to the second register through a further logic gate, the further logic gate further being coupled to the first register.

5 10. A module as claimed in claim 7 or 8, characterized in that the dedicated control circuitry further comprises a plurality of logic gates being responsive to the bit pattern in the second register, the plurality of logic gates having their inputs coupled to the second further register and having at least an output coupled to the control terminal of the further multiplexer.

10 11. An electronic device comprising a plurality of modules being substantially serially interconnected in an evaluation mode through respective input pins and output pins, a module from the plurality of interconnected modules comprising a functional block and a test controller for controlling the functional block in the evaluation mode of the module, the test
15 controller comprising:

a plurality of pins including an input pin from the respective input pins and an output pin from the respective output pins;

a first register coupled between the input pin and the output pin for receiving a bit pattern via the input pin and outputting the bit pattern via the output pin; and

20 a second register coupled to the first register for capturing the bit pattern responsive to an update signal;

characterized in that the test controller further comprises dedicated control circuitry for blocking the update signal responsive to the bit pattern.

25 12. An evaluation tool comprising a set of bit patterns for evaluating an electronic device as claimed in claim 11 by providing the electronic device with the set of bit patterns, characterized in that the set of bit patterns comprises a bit pattern for triggering the control circuitry to block the update signal responsive to the bit pattern.